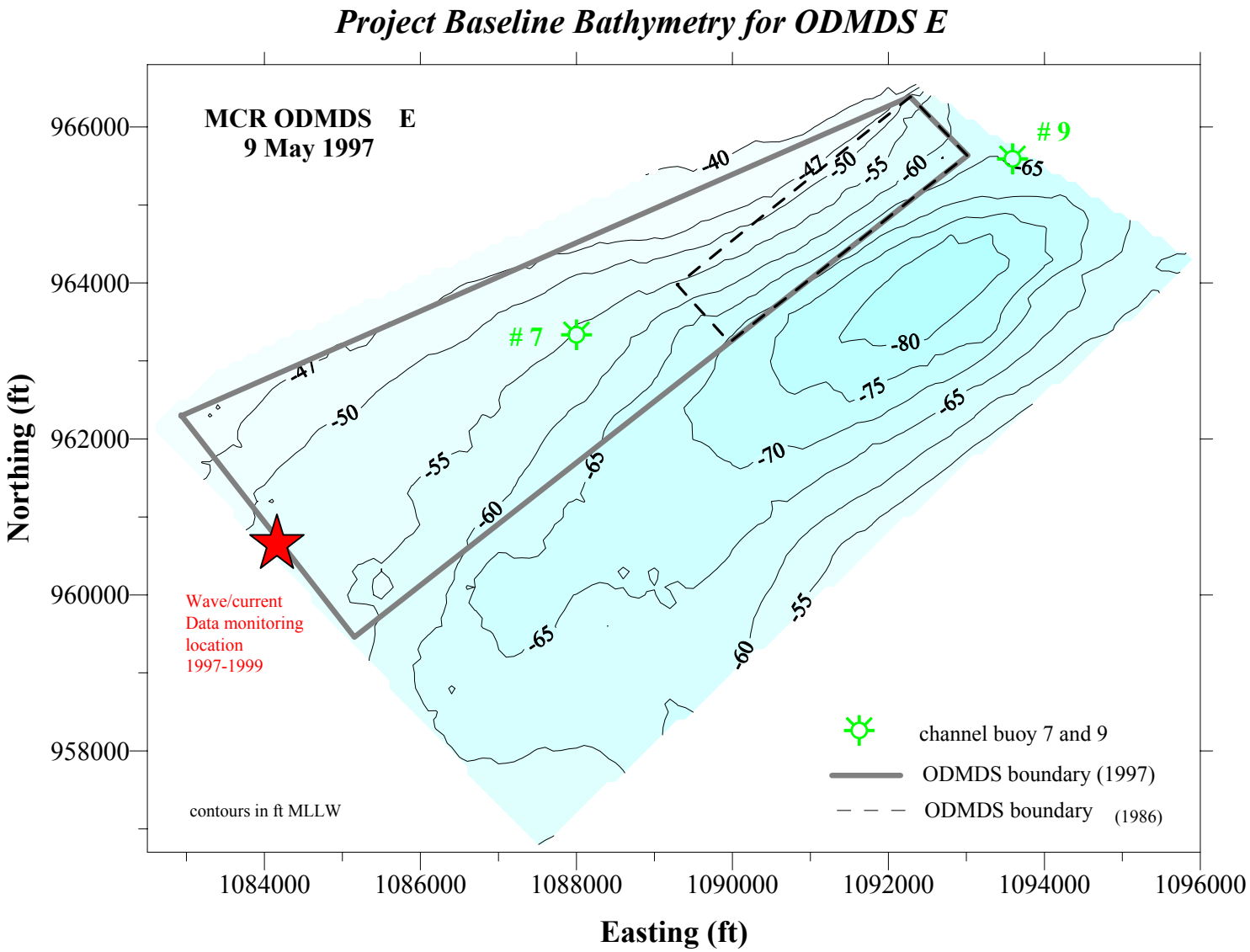


Figure F1. Baseline bathymetry condition of the Shallow Water ODMDS (ODMDS E). Assessment of potential impacts arising from the use of the SW ODMDS is performed with respect to the baseline condition.

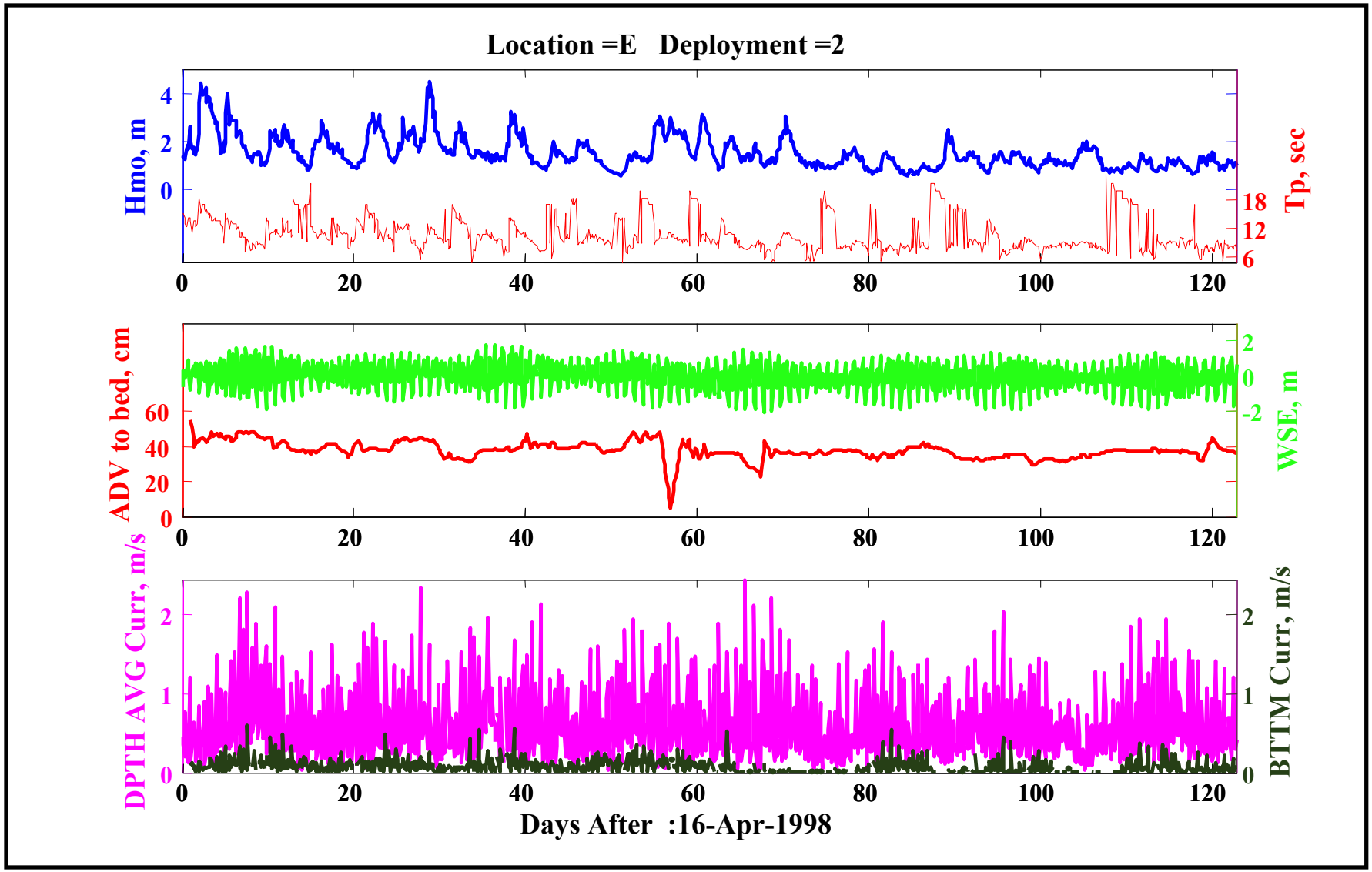


Figure F2. Summary of the oceanographic data measured 16 April - 20 August 1998 at western boundary of SW ODMDS. Data was used in the MDFATE model to simulate dredged material behavior during placement at the SW ODMDS for each of 3 disposal scenarios. Pertinent data included wave height and period (top graph), tide (green line, middle graph), and depth-averaged current (purple line, bottom graph).

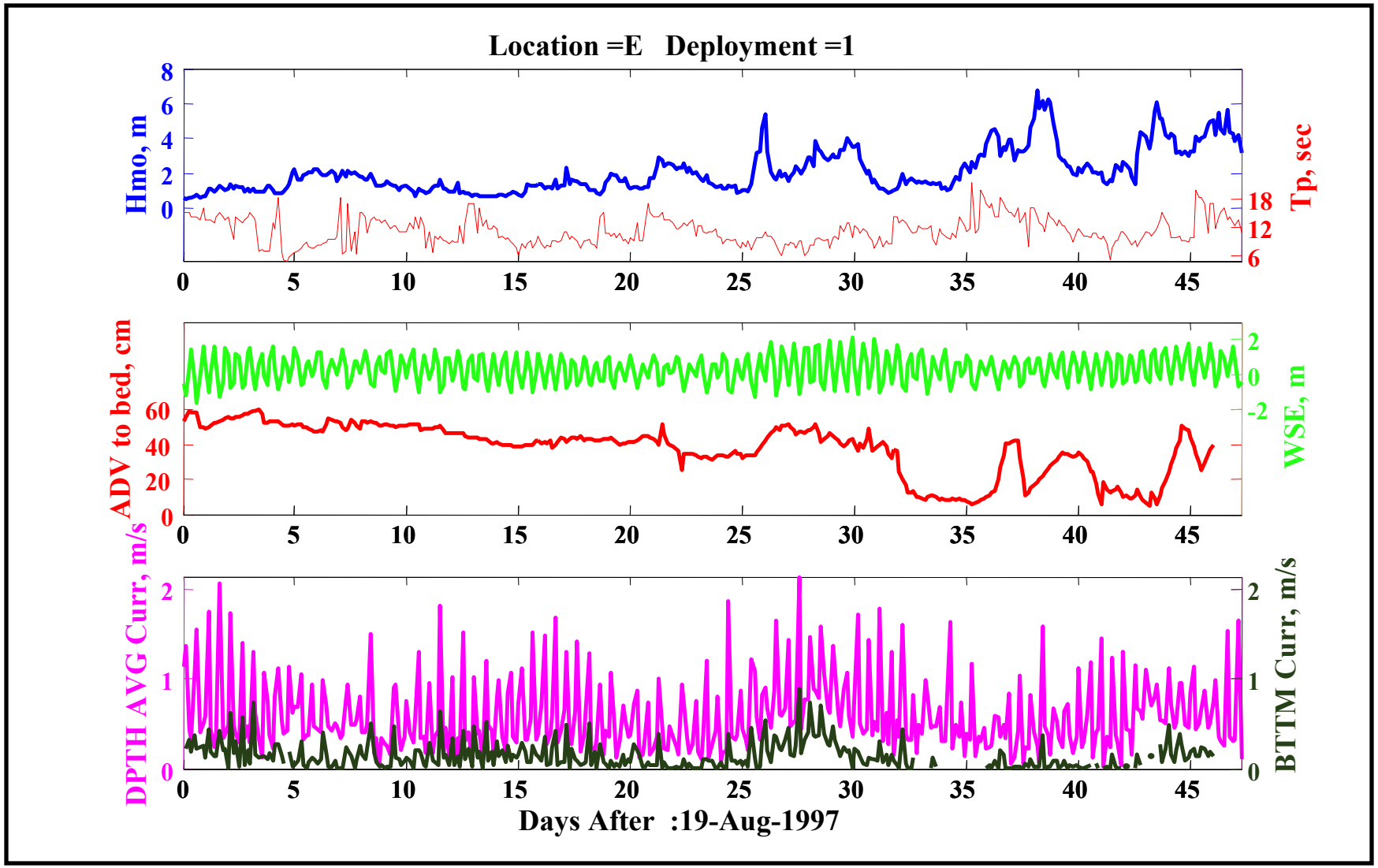


Figure F3. Summary of the oceanographic data measured 19 August - 10 October 1997 at western boundary of SW ODMDS. Data was used in the MDFATE model to simulate dredged material behavior during placement at the SW ODMDS for each of 3 disposal scenarios. Pertinent data included wave height and period (top graph), tide (green line, middle graph), and depth-averaged current (purple line, bottom graph).

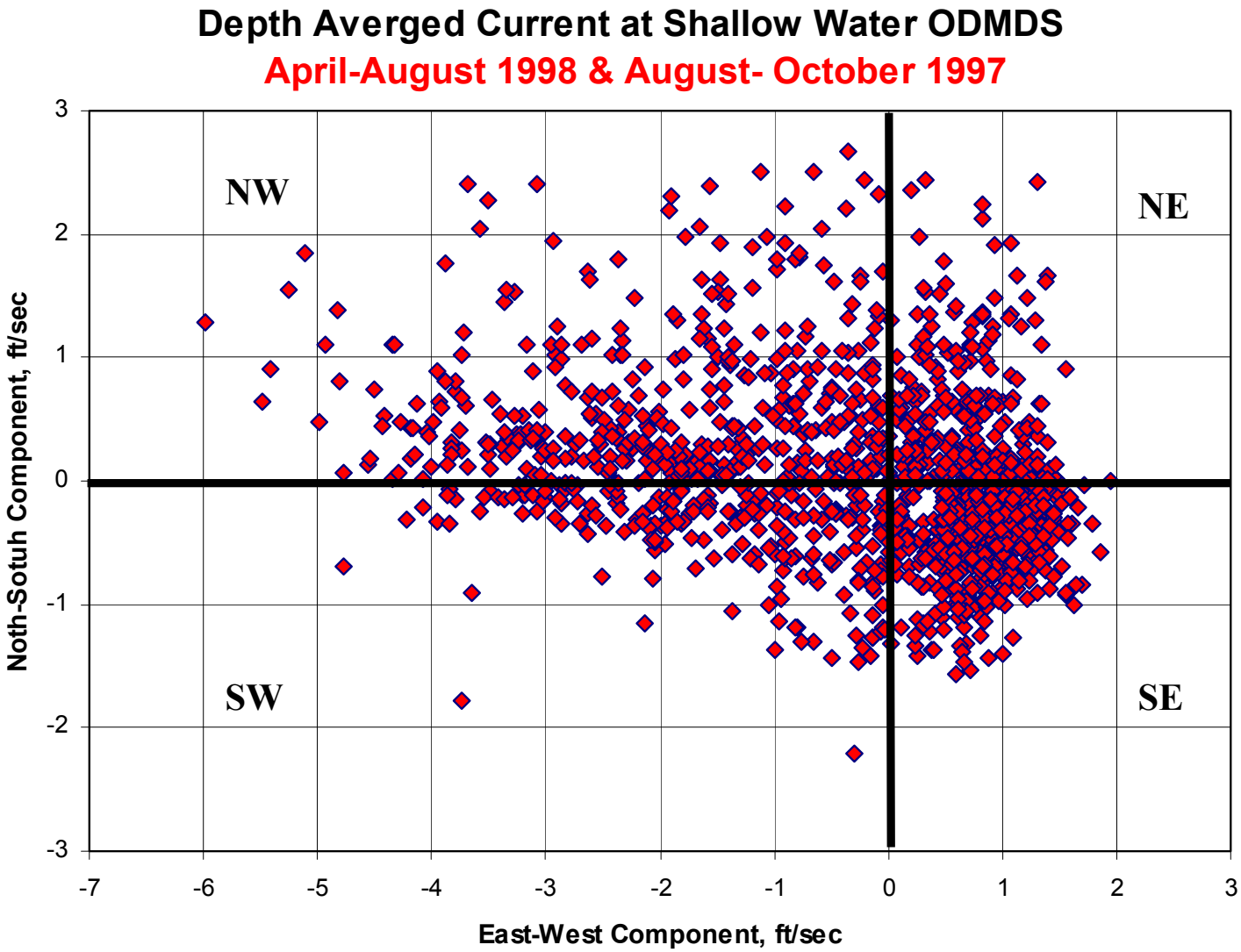


Figure F4. Directional plot of depth averaged current observed at western boundary of SW ODMDS during April-August 1998 and August-October 1997. Each "dot" corresponds to a single observation, recorded every 3 hours. Note that the dominate strength of current is toward the NW, but for much of the time, the current is set weakly toward the SE.

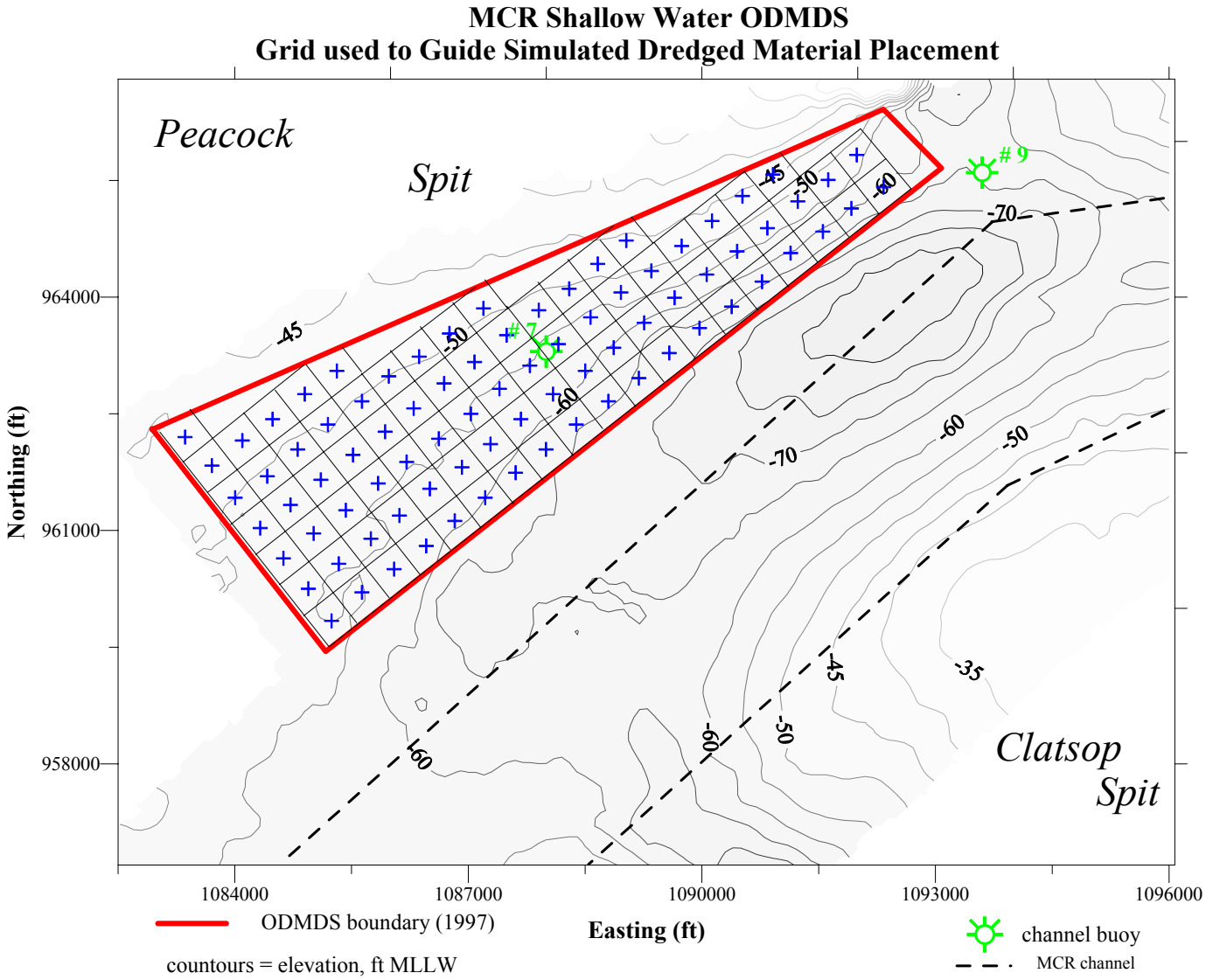


Figure F5. Cell geometry used to control the placement of dredged material within the Shallow Water ODMDS, for MDFATE simulations. The centroid for each 500 ft x 500 ft cell is shown as a blue cross; there are 83 cells.

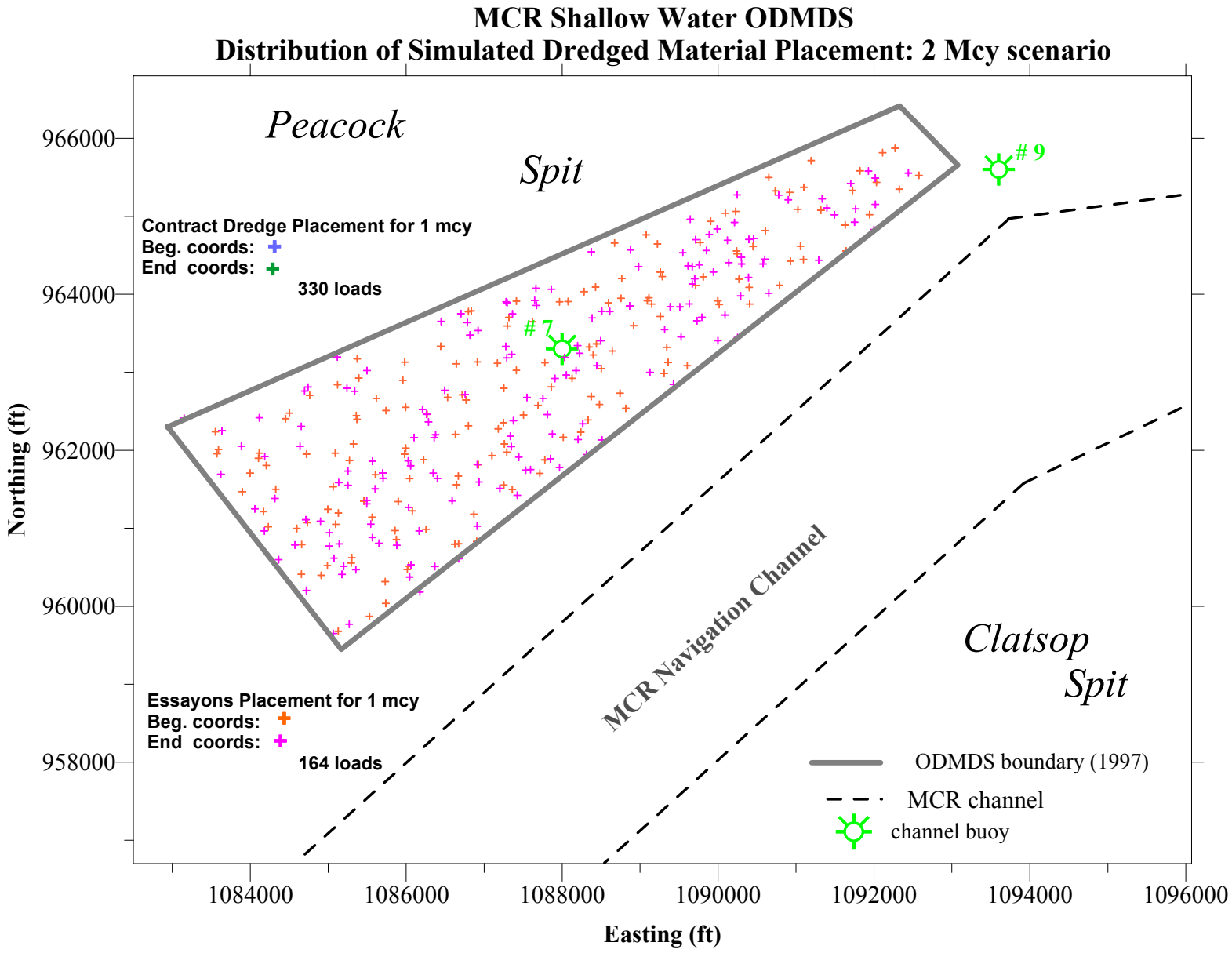
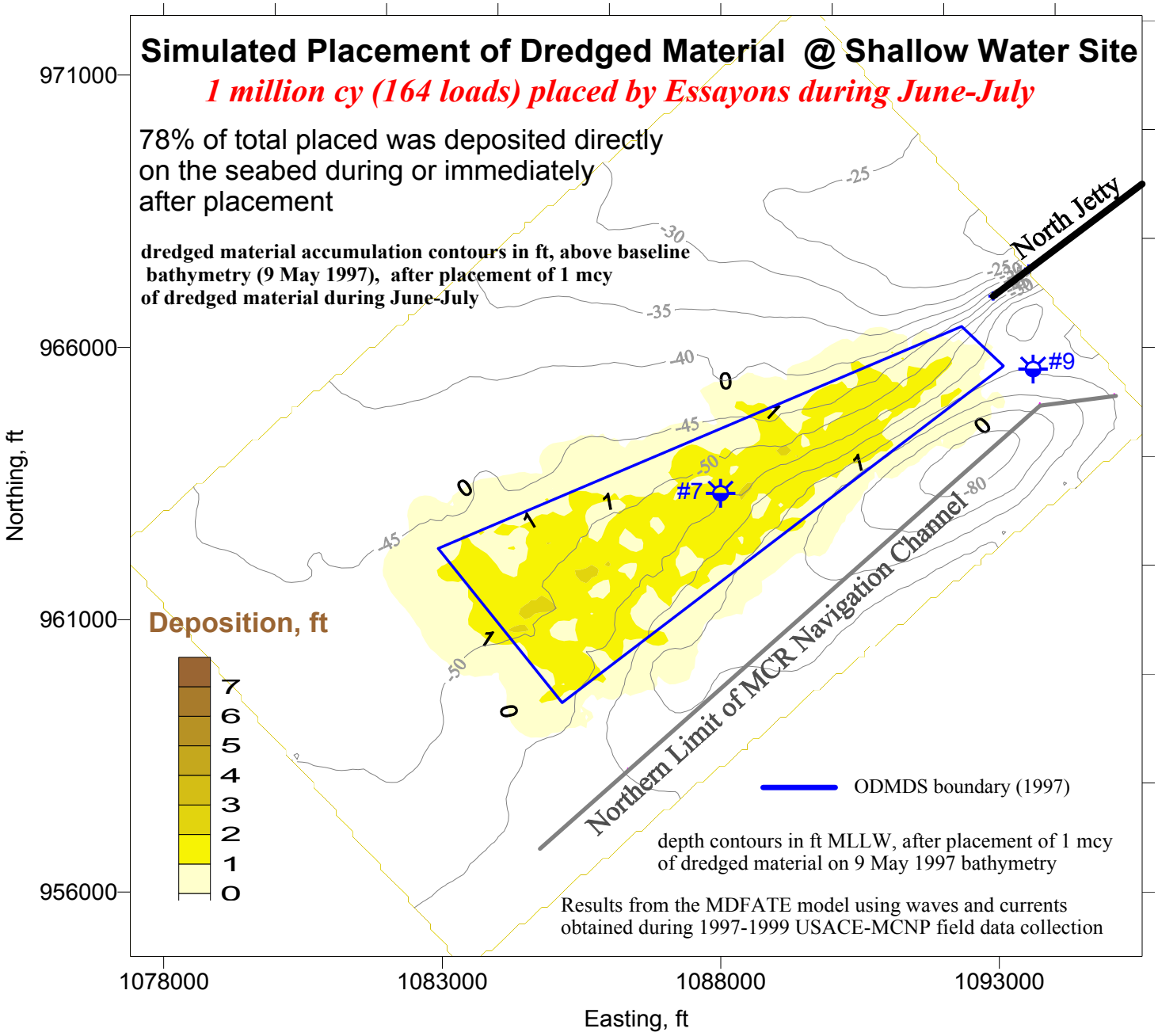


Figure F6. Uniformly distributed dredged material placement locations for the hopper dredge **Essayons** to place 1 million cy in the SW ODMDS, using the grid shown in figure F5. The release points for 2 dumps were assigned per cell.

Figure F7. Estimated deposition within SW ODMDS resulting from the hopper dredge **Essayons** placing 1 million cy of dredged material according to the assigned disposal plan shown in figure F6. Maximum predicted vertical accumulation is 2 ft.



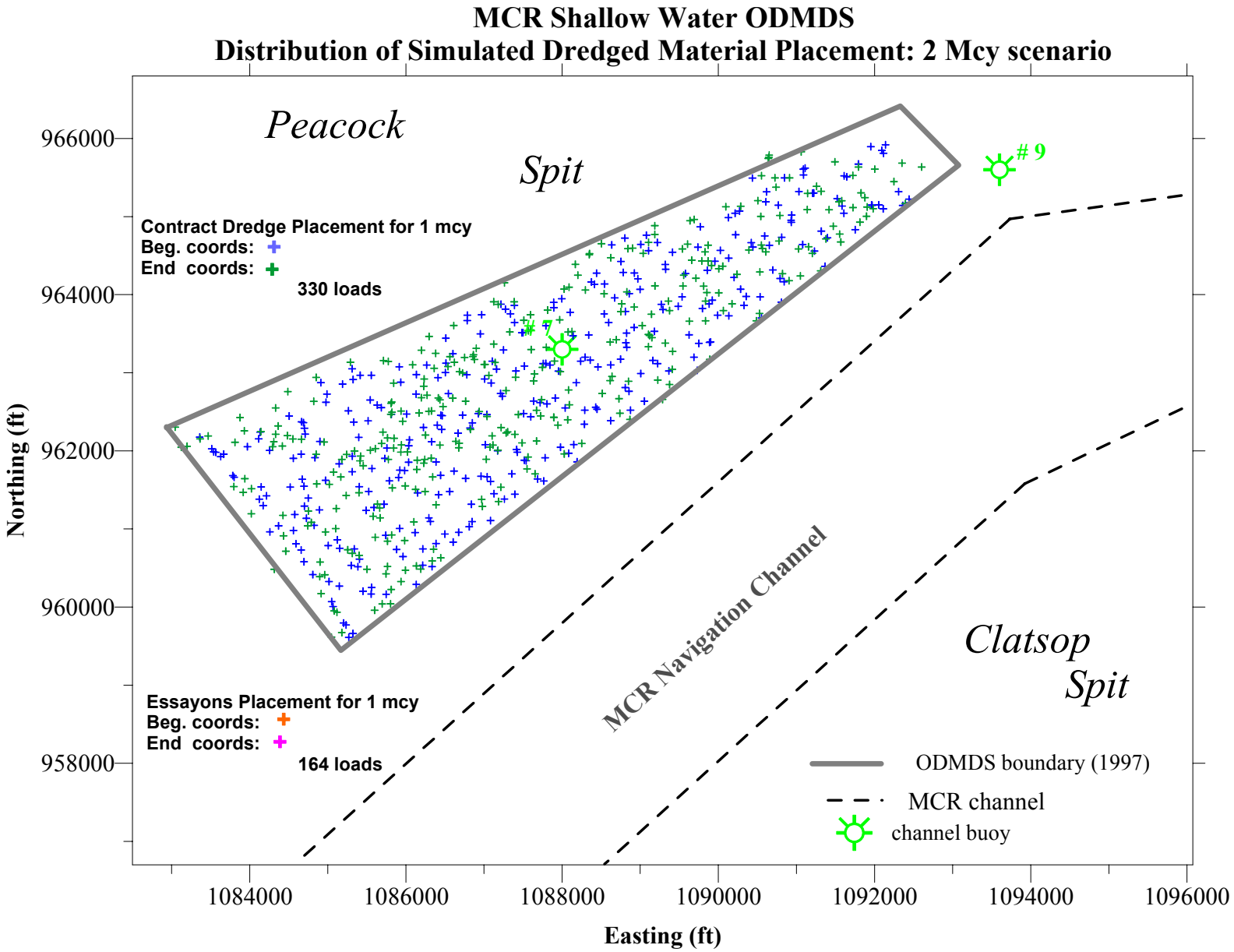
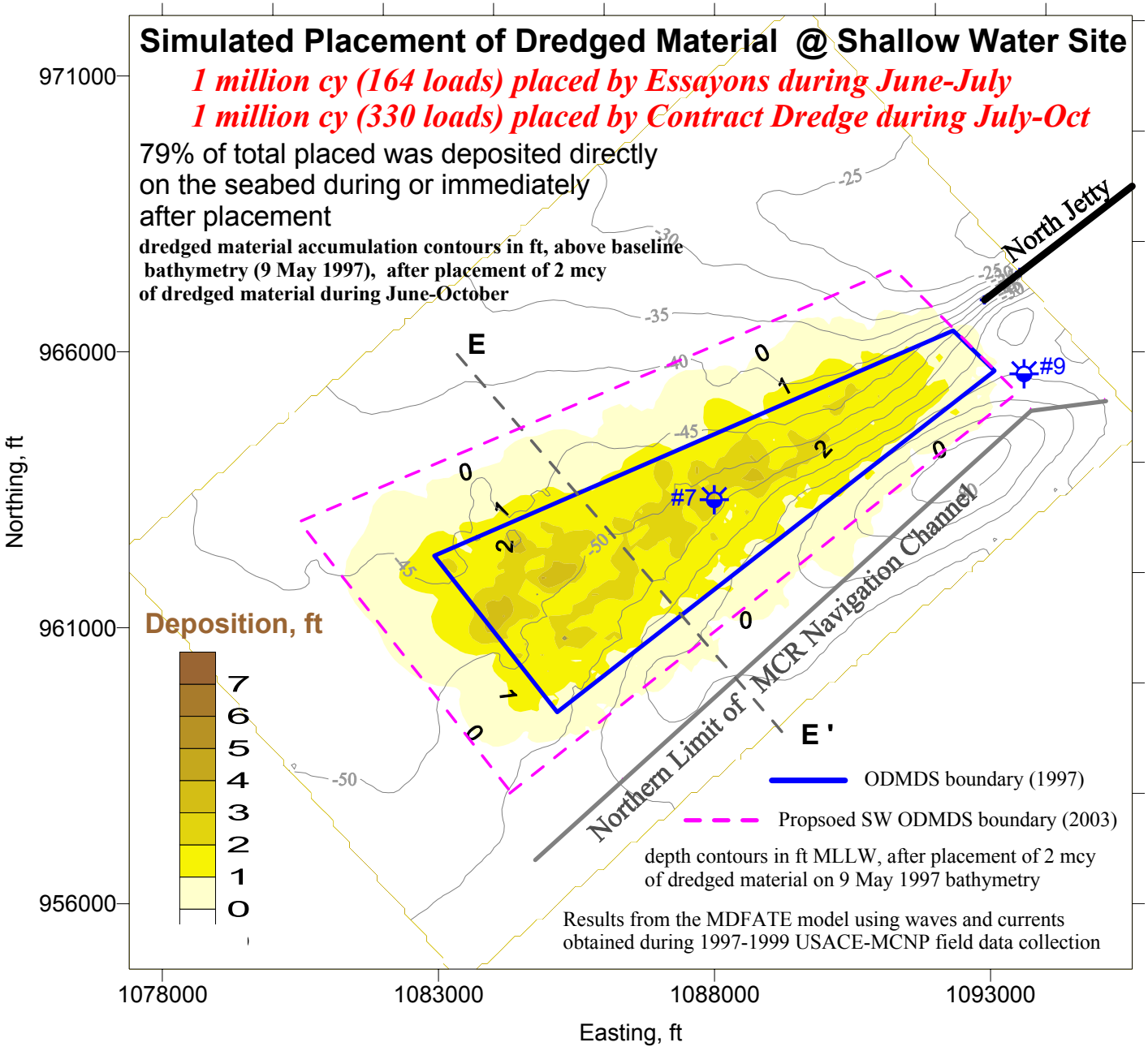


Figure F8. Uniformly distributed dredged material placement locations for the **Contract** hopper dredge to place 1 million cy in the SW ODMDS, using the grid shown in figure F5. The release points for 4 dumps were assigned per cell.

Figure F9. Estimated cumulative deposition within SW ODMDS resulting from the **Contract** dredge placing 1 million cy of dredged material according to the assigned disposal plan shown in figure F8, on top of the 1 million cy placed by the dredge **Essayons**. Maximum predicted vertical accumulation is 3 ft. Proposed purple outer boundary is needed to account for dredged material accumulation during active disposal; extends 500 ft beyond existing southern boundary and 1,500 ft beyond existing western, northern boundary.



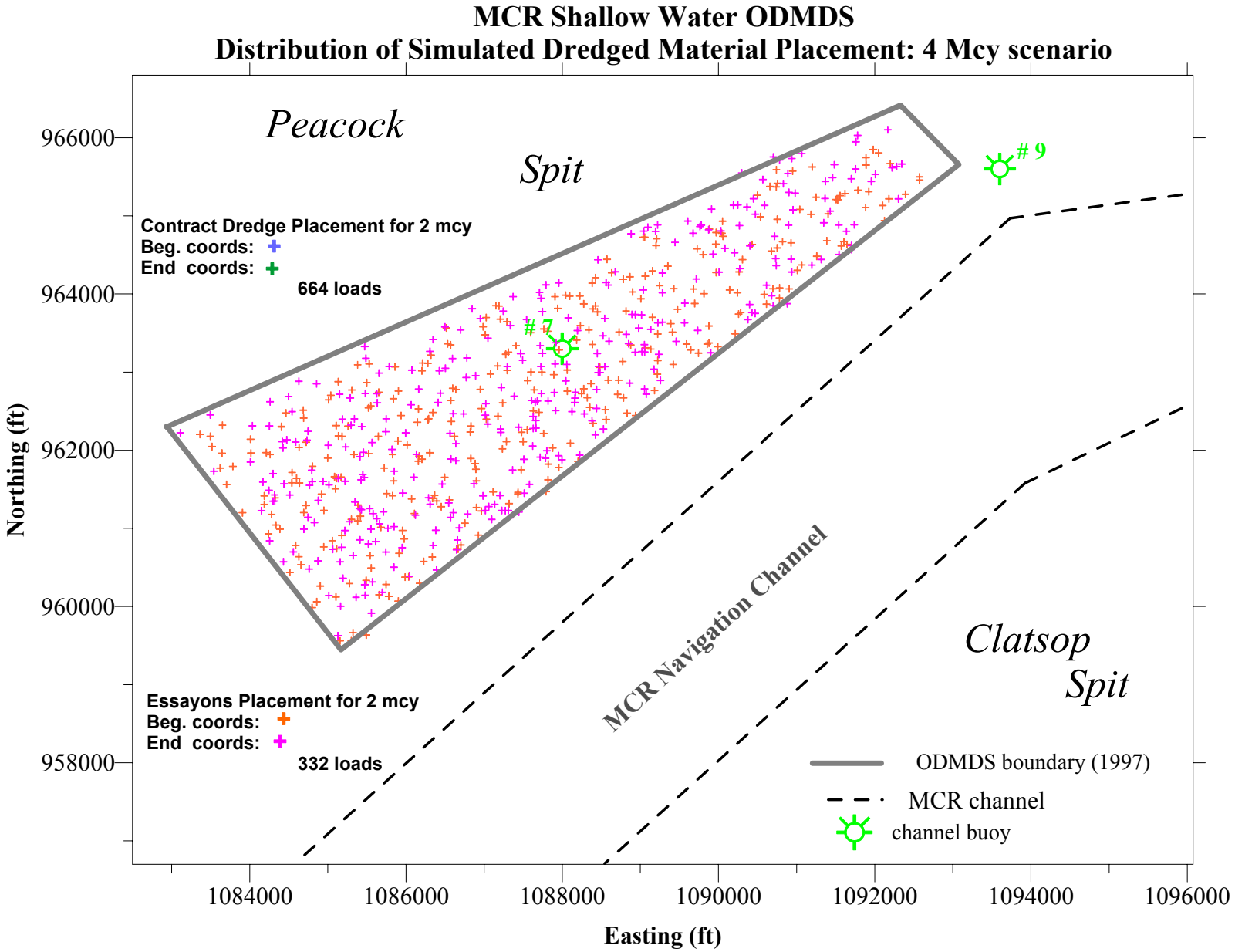
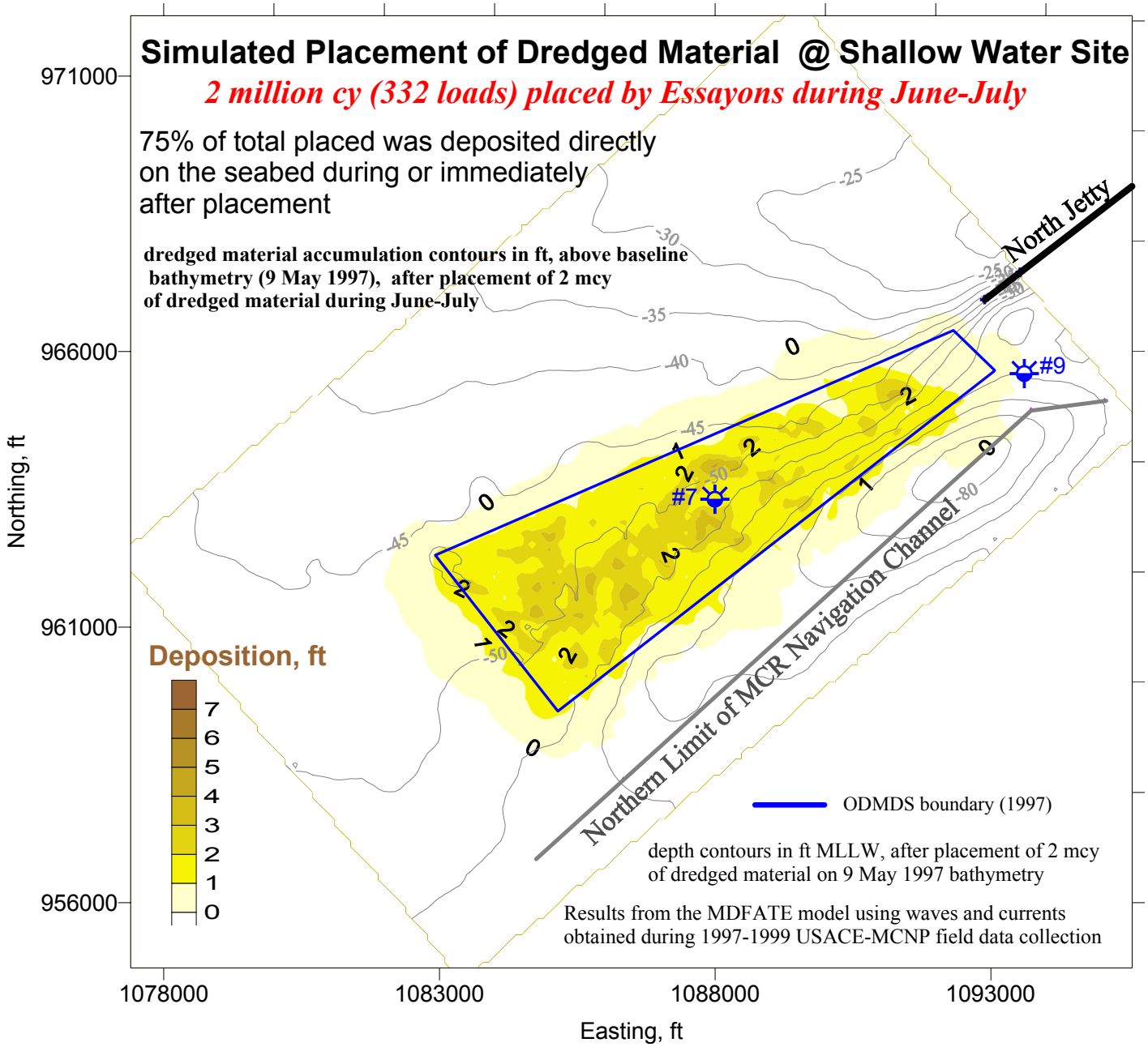


Figure F10. Uniformly distributed dredged material placement locations for the hopper dredge **Essayons** to place 2 million cy in the SW ODMDS, using the grid shown in figure F5. The release points for 4 dumps were assigned per cell.

Figure F11. Estimated deposition within SW ODMDS resulting from the hopper dredge **Essayons** placing 2 million cy of dredged material according to the assigned disposal plan shown in figure F10. Maximum predicted vertical accumulation is 4 ft.



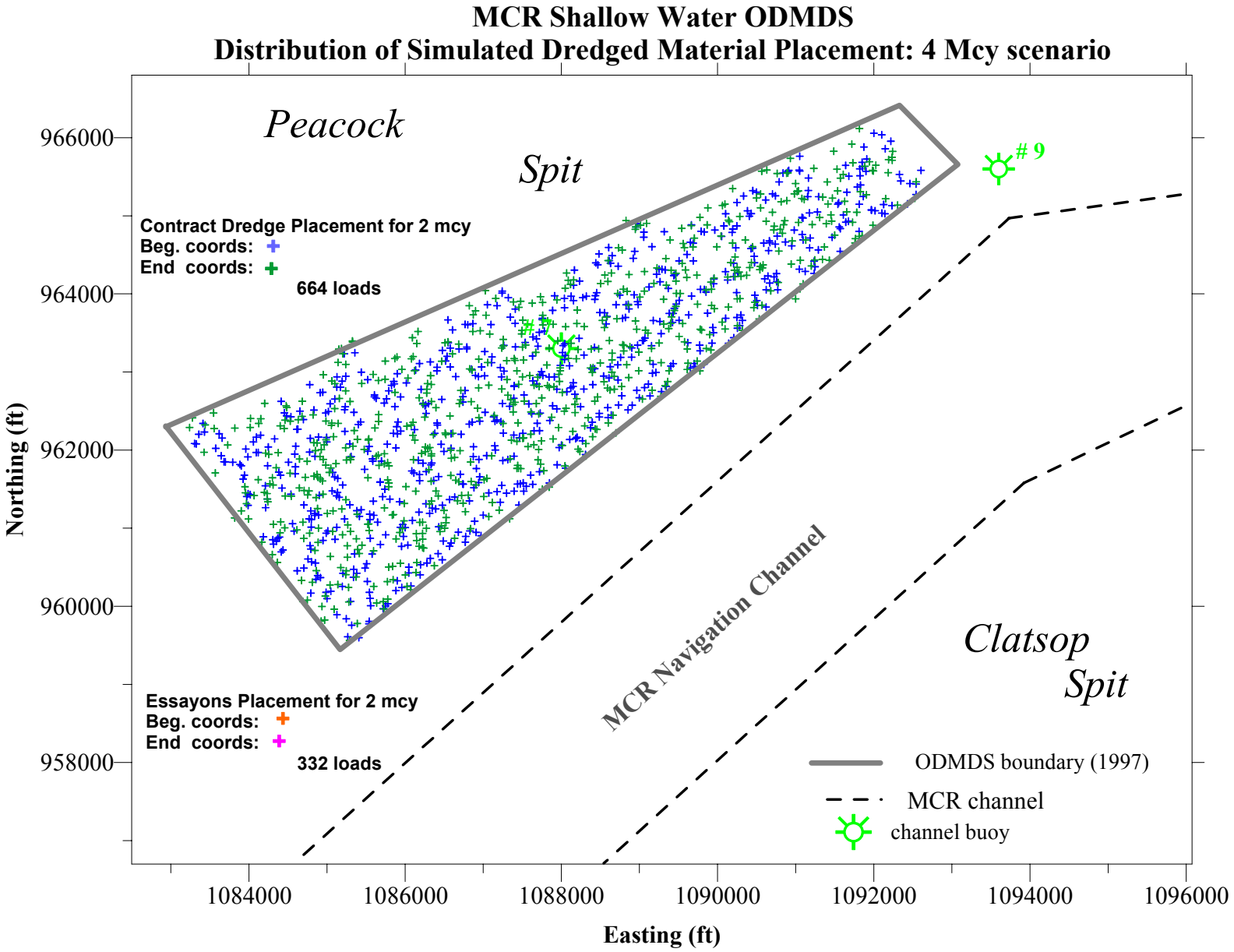
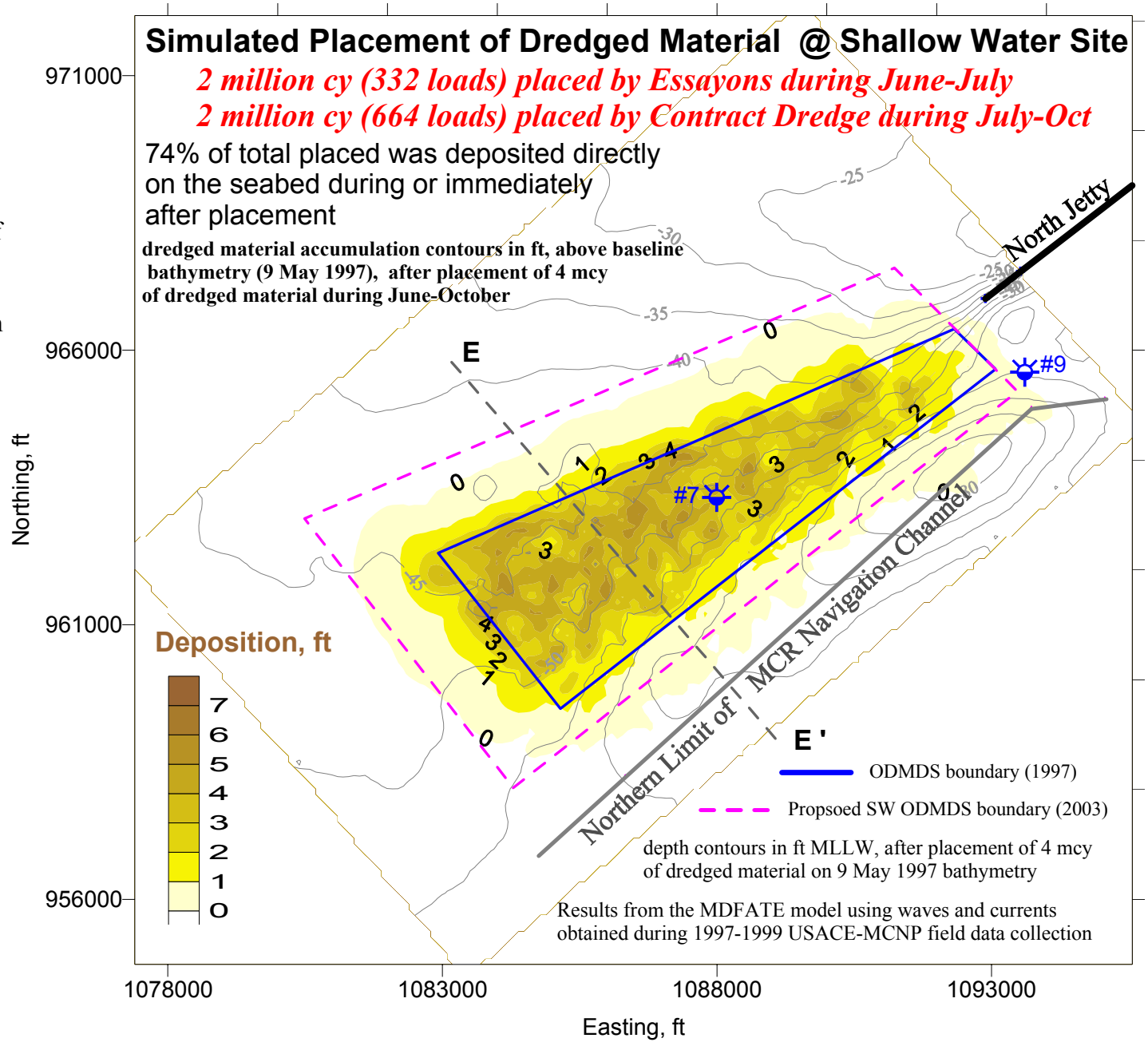


Figure F12. Uniformly distributed dredged material placement locations for the **Contract** hopper dredge to place 2 million cy in the SW ODMDS, using the grid shown in figure F5. The release points for 8 dumps were assigned per cell.

Figure F13. Estimated cumulative deposition within SW ODMDS resulting from the **Contract** dredge placing 2 million cy of dredged material according to the assigned disposal plan shown in figure F12, on top of the 2 million cy placed by the dredge **Essayons**. Maximum predicted vertical accumulation is 5 ft. Proposed purple outer boundary is needed to account for dredged material accumulation during active disposal; extends 500 ft beyond existing southern boundary and 1,500 ft beyond existing western, northern boundary.



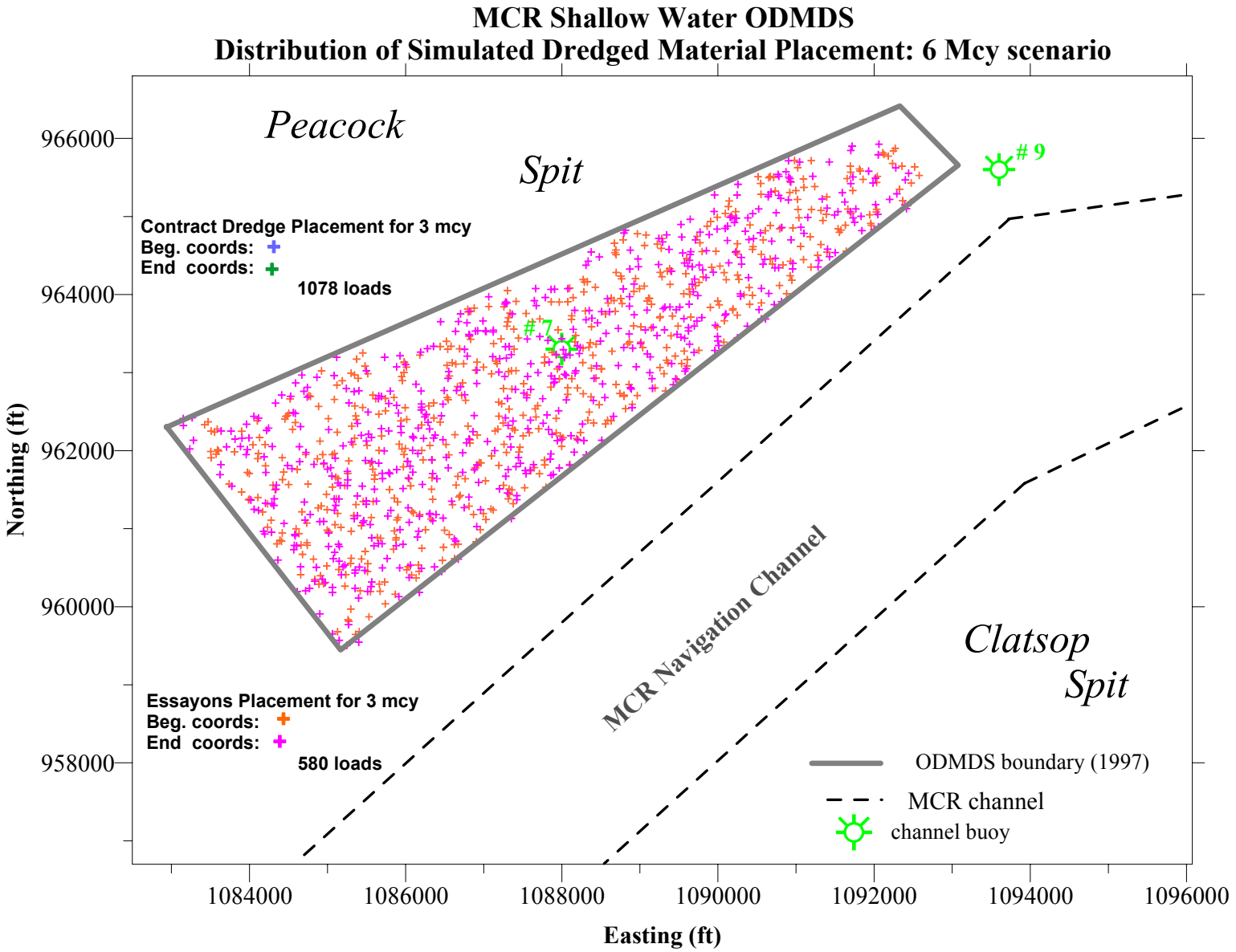


Figure F14. Uniformly distributed dredged material placement locations for the hopper dredge **Essayons** to place3 million cy in the SW ODMDS, using the grid shown in figure F5. The release points for 7 dumps were assigned per cell.

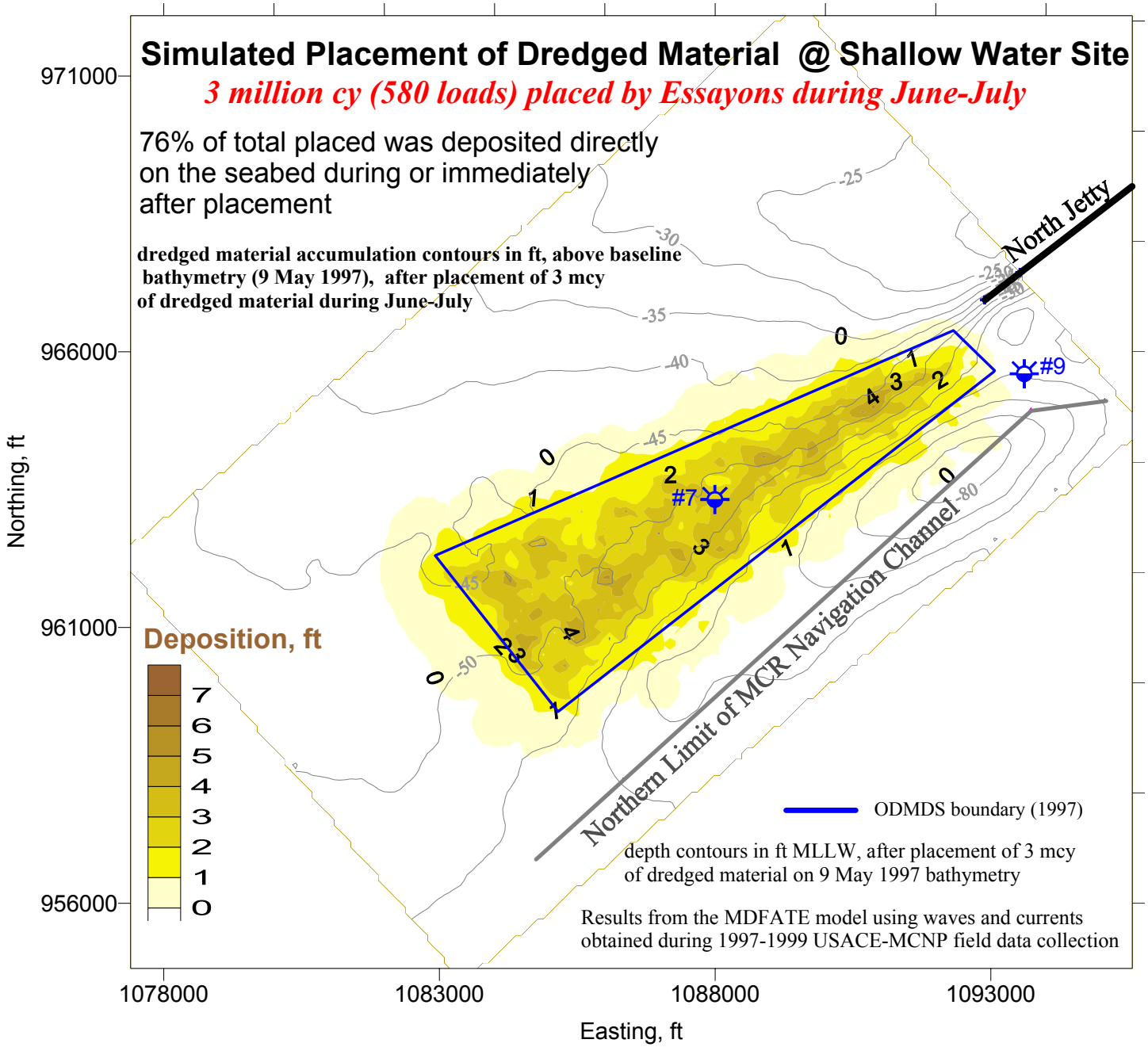


Figure F15. Estimated deposition within SW ODMDS resulting from the hopper dredge **Essayons** placing 3 million cy of dredged material according to the assigned disposal plan shown in figure F14. Maximum predicted vertical accumulation is 5 ft.

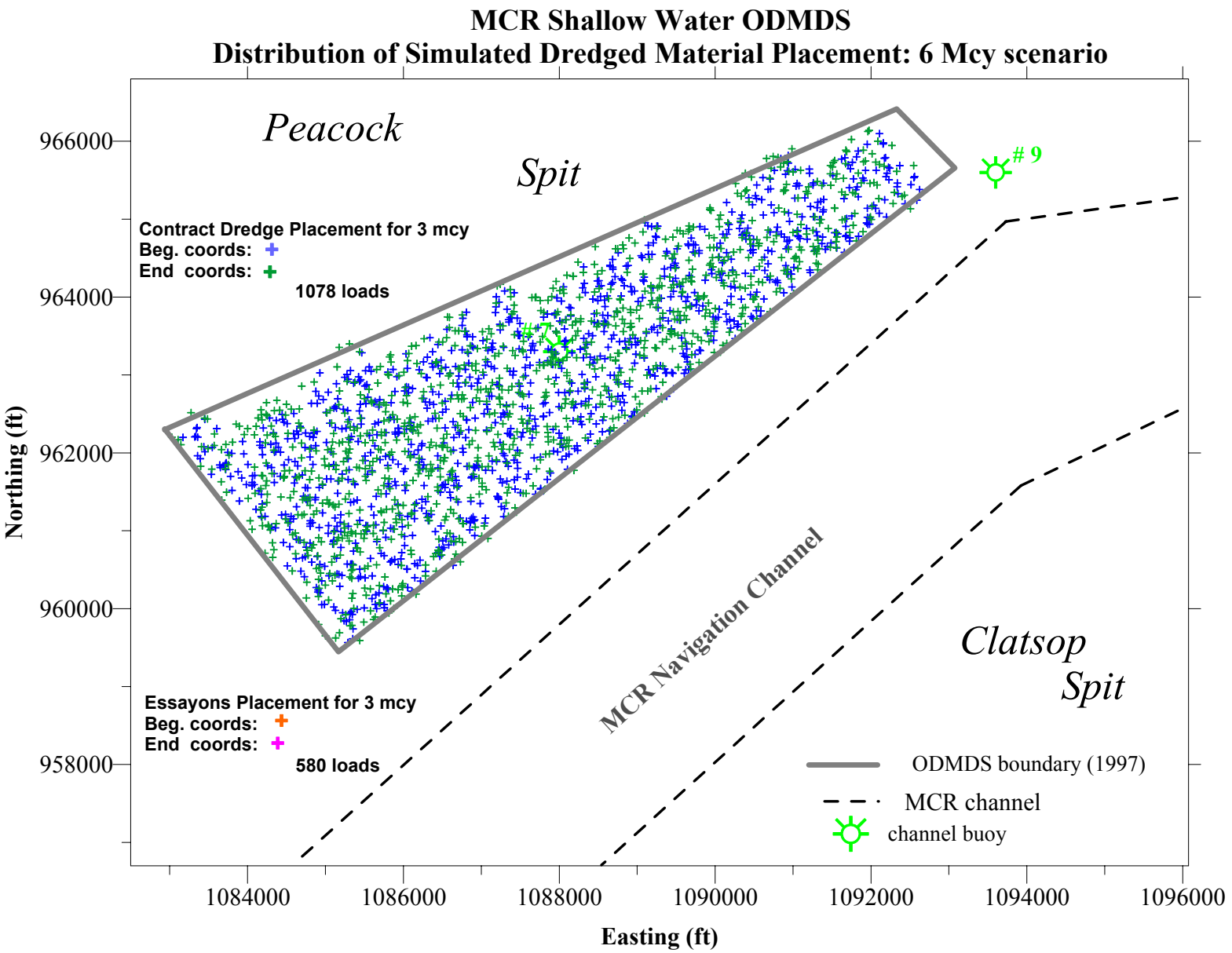
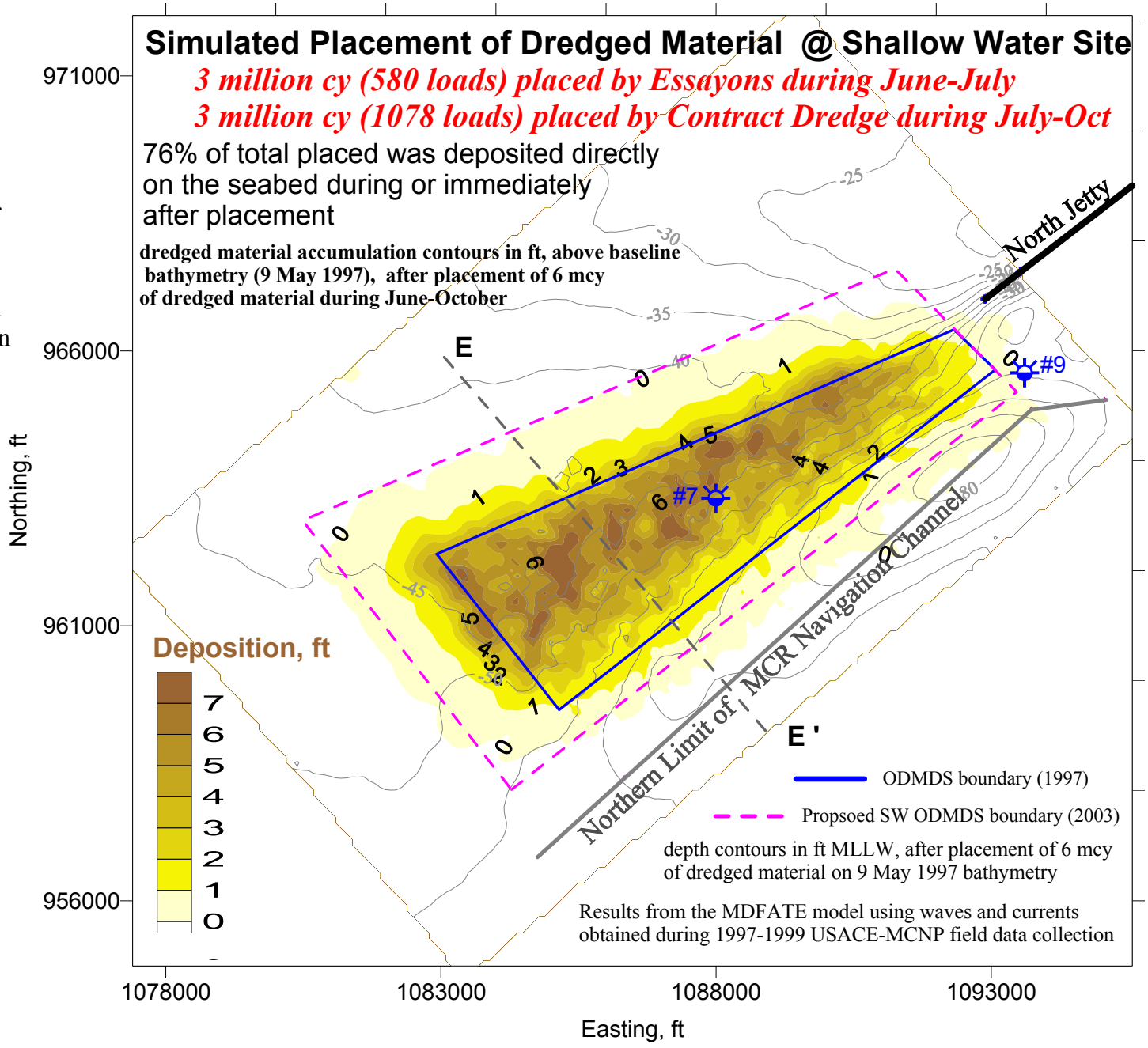


Figure F16. Uniformly distributed dredged material placement locations for the **Contract** hopper dredge to place 3 million cy in the SW ODMDS, using the grid shown in figure F5. The release points for 13 dumps were assigned per cell.

Figure F17. Estimated cumulative deposition within SW ODMDS resulting from the **Contract** dredge placing 3 million cy of dredged material according to the assigned disposal plan shown in figure F16, on top of the 3 million cy placed by the dredge **Essayons**. Maximum predicted vertical accumulation is 8 ft. Proposed purple outer boundary is needed to account for dredged material accumulation during active disposal; extends 500 ft beyond existing southern boundary and 1,500 ft beyond existing western, northern boundary.



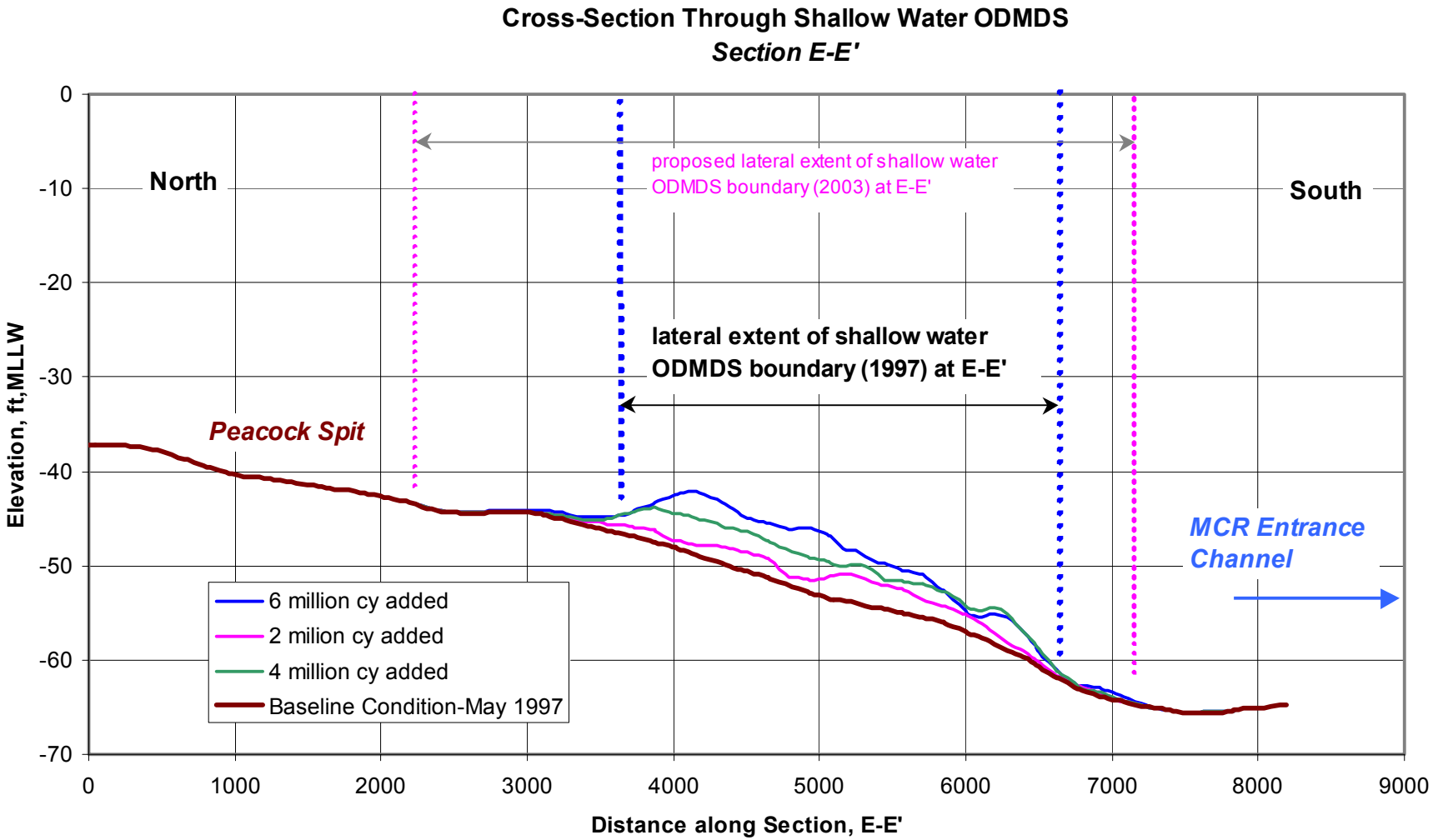


Figure F18. Cross-section though SW ODMDS, as shown in figs F9, F13, & F17; view is toward shore. Baseline bathymtry is shown with predicted results for placed dredged material accumulation for 3 disposal scenarios.

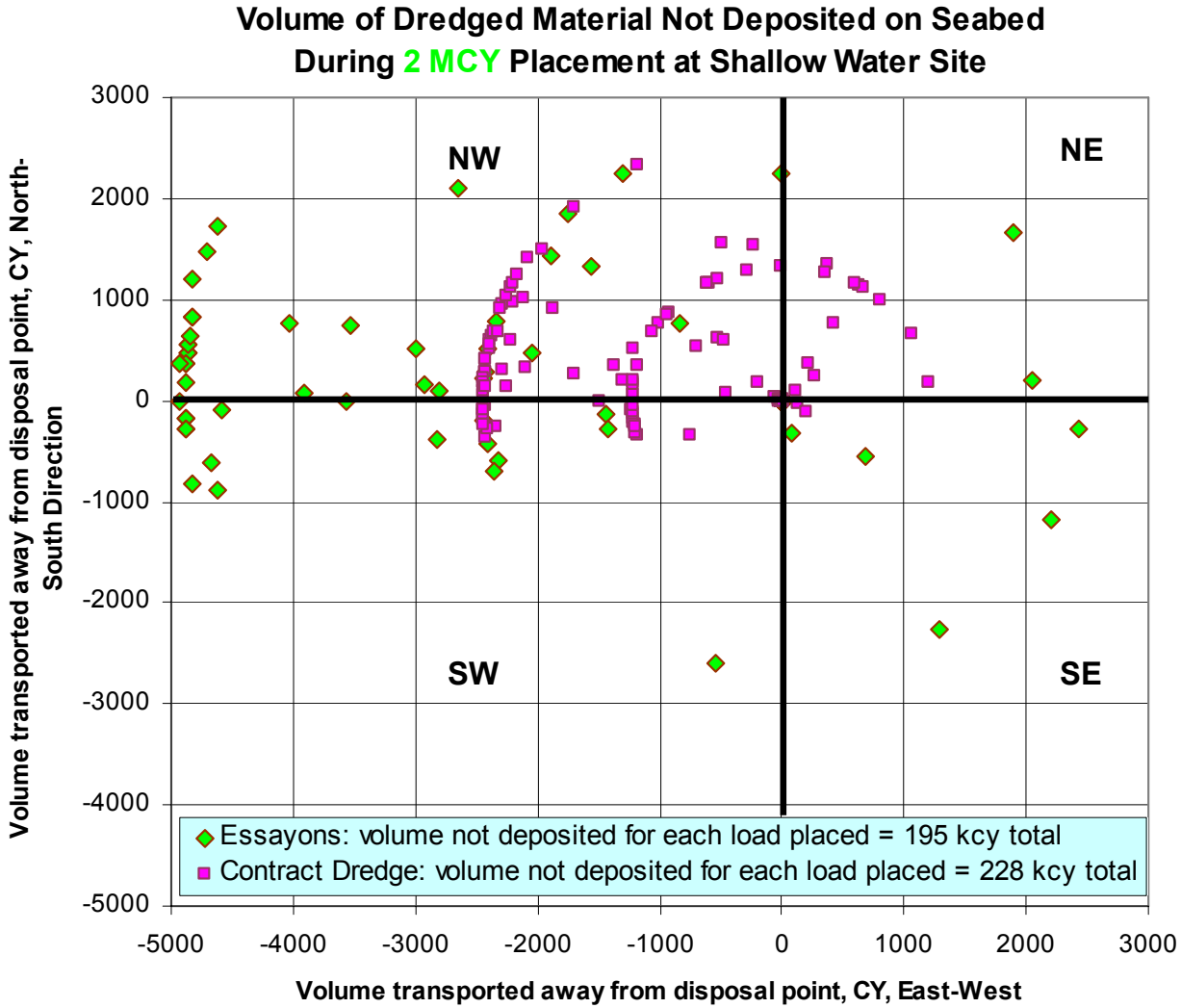


Figure F19. Directional plot showing the spatial distribution of dredged material (volume) carried out of SW ODMDS by currents, during disposal from a hopper dredge for the **2 million cy placement scenario**. Note that very little placed dredged material is carried toward the south (toward the navigation channel). Each "dot" indicates the volume/direction of material transported out of the SWS during a given disposal cycle.

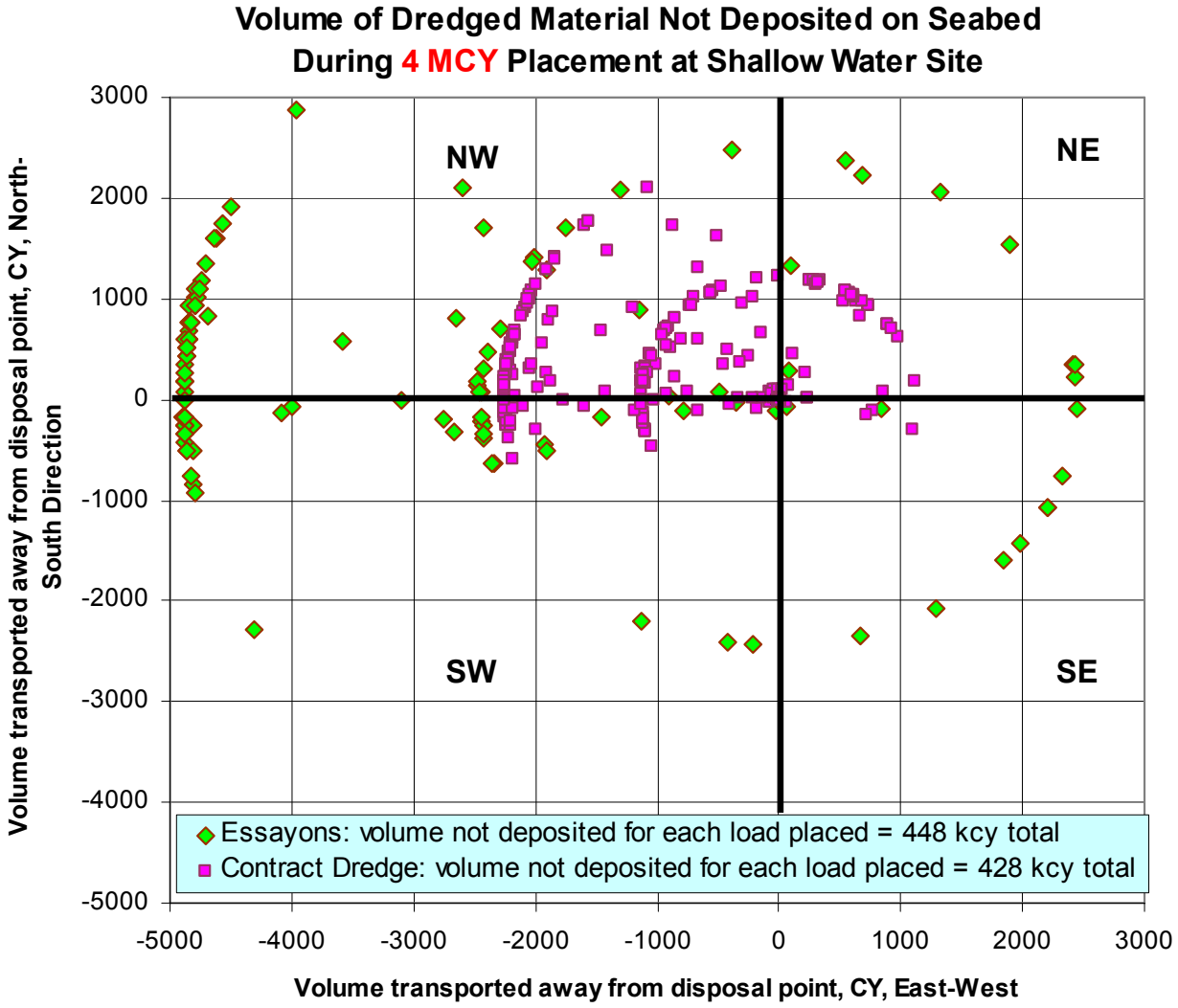


Figure F20. Directional plot showing the spatial distribution of dredged material (volume) carried out of SW ODMDS by currents, during disposal from a hopper dredge for the **4 million cy placement scenario**. Note that very little placed dredged material is carried toward the south (toward the navigation channel). Each "dot" indicates the volume/direction of material transported out of the SWS during a given disposal cycle.

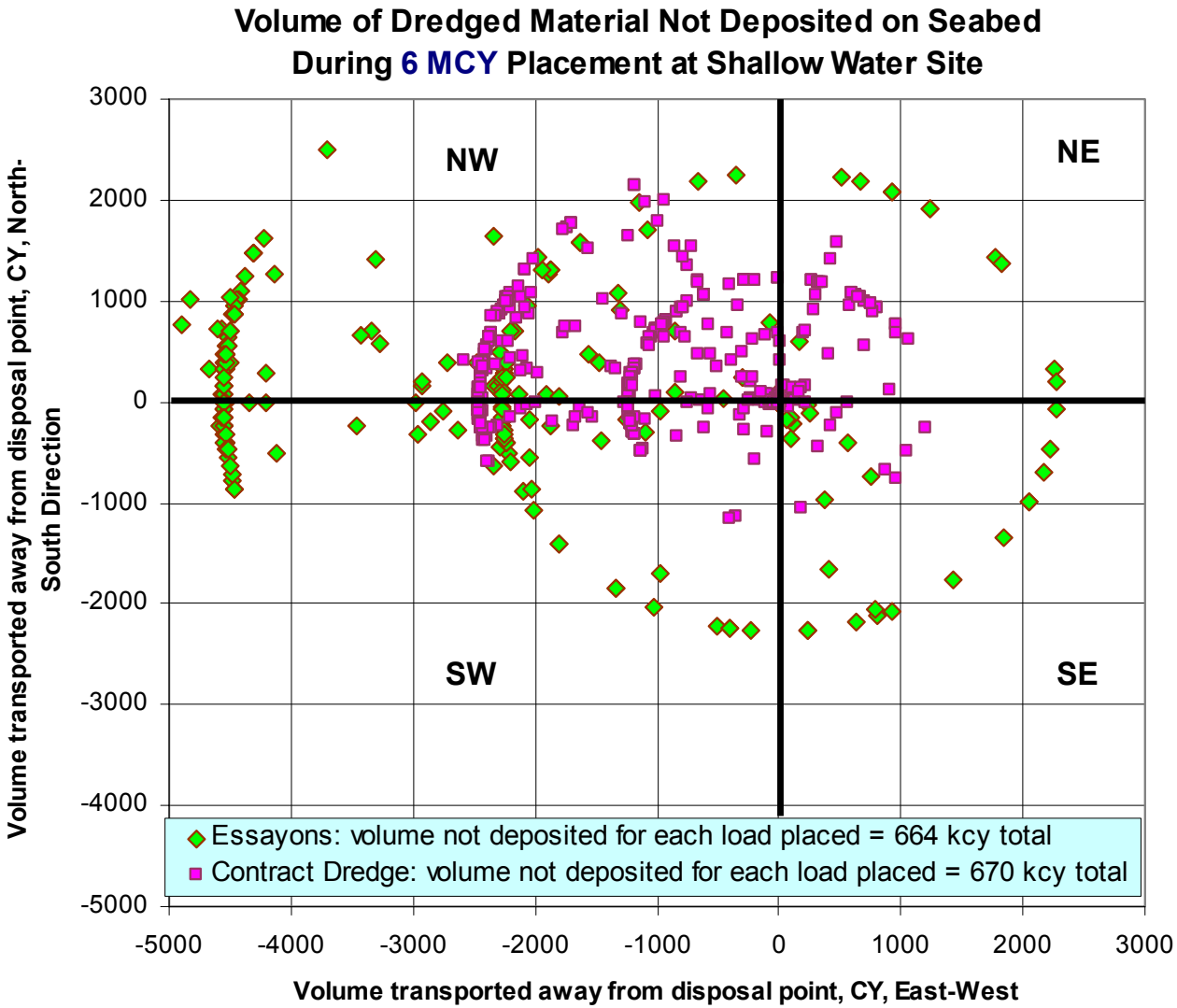


Figure F21. Spatial distribution of dredged material (volume) carried out of SW ODMDS by currents, during disposal from a hopper dredge for the **6 million cy placement scenario**. Note that very little placed dredged material is carried toward the south (toward the navigation channel). Each "dot" indicates the volume/direction of material transported out of the SWS during a given disposal cycle.

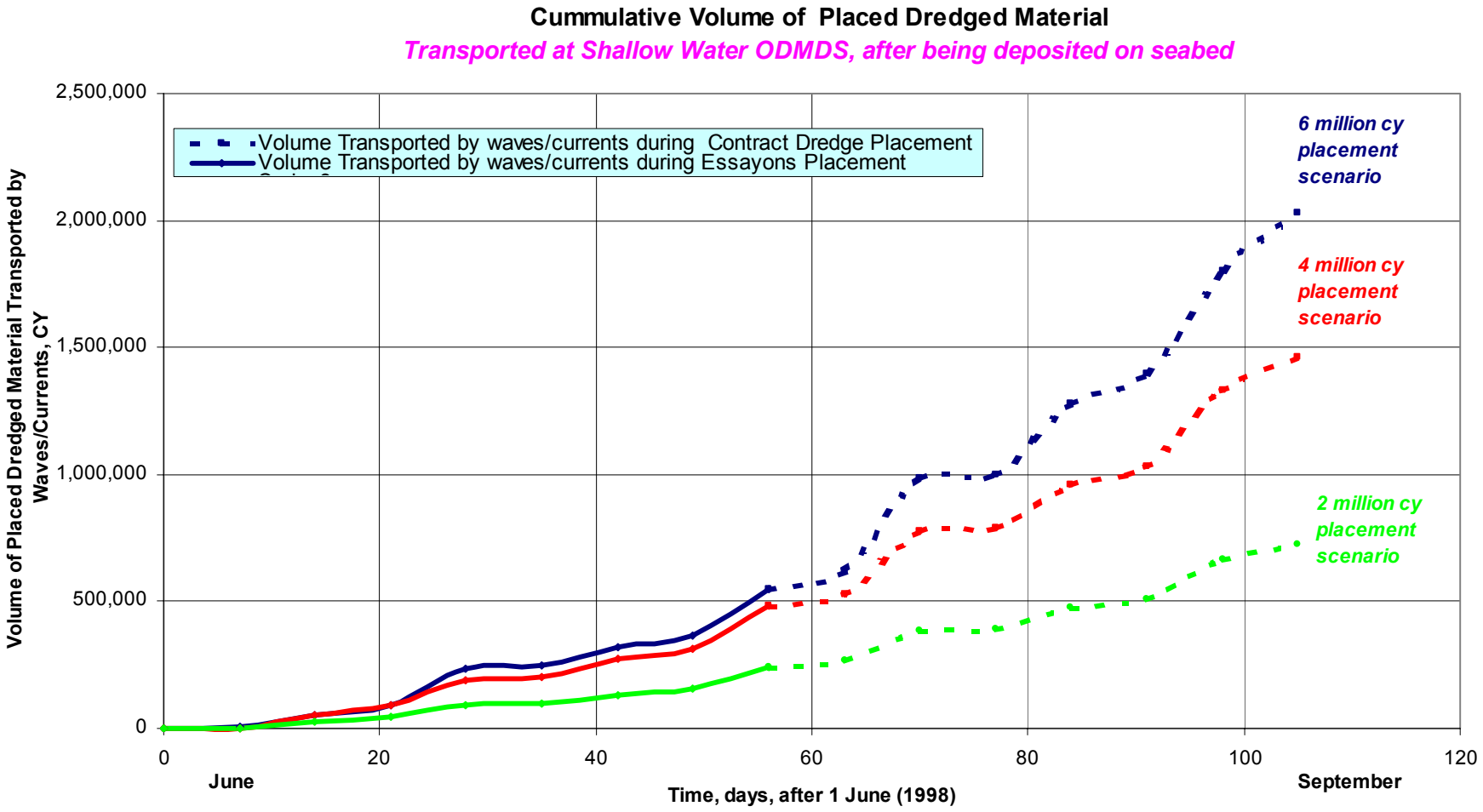


Figure F22. Cumulative volume of placed dredged material that was predicted to be transported either within (or out of) the SW ODMDS during the dredging/disposal season, after being deposited on the seabed by the hopper dredges. Estimated values shown in this figure correspond closely with observed values for SWS sediment transport, shown in Table 1.